People as an essential tool for the consideration of ethics in the product lifecycle

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People as an essential tool for considering ethics in the product lifecycle

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This paper explores the vital engagement of people at different stages of the product lifecycle. The incorporation of human values in the creation of empathy allows for ethics to be considered across the design and make process. A case study approach was adopted utilising data obtained from two large consumer goods companies. From this, a relationship was found to lie between the involvement of people as active participants and the creation of empathy. These empathetic values consequently facilitated the consideration of a responsible approach to be implemented. Conclusions show that during the design process people create added value with a participatory approach, whilst during production consumers become prosumers in consumer-led innovation to help drive forward an ethical agenda.

keywords: ethical product lifecycle; empathetic values, consumer-led innovation

1. Introduction

The product lifecycle is often a long and complex process involving many vital stages of design and production in order to reach a successful outcome. This process can involve many operations, people and even countries before the final product is ready to be delivered to market. The value of design has been widely researched in both academic and industrial fields (Gardien et al., 2013; Press & Cooper, 2003) however, the value of efficient and responsible manufacture requires further exploration to discover its full potential. This paper aims to explore the breadth of the product lifecycle, gaining insights into both the design and manufacture phases through the investigation of people as active participants in the consideration of responsible practices.

The design phase of the process is crucial in order to ensure product innovation and originality, with many companies adopting different approaches to design in order to ensure that these high levels of innovation are achieved. Methods such as co-creation and participatory design are often adopted; facilitating the engagement of stakeholders, including end users, to ensure that the end product is desirable and functional. This allows for different parties to work collaboratively towards an end goal of mutual value. Approaches such as co-creation, co-design, and participatory design are the very first instances when people are involved in decision-making.

Sanders & Stappers (2008, pp. 6) define *co-creation* as any act of collective creativity, i.e. creativity that is shared by two or more people for the purpose of co-production of ideas, products, etc. Frow et al. (2015) describe co-creation in more general terms, where its application ranges from physical to meta-physical and in some cases, spiritual involvement of participants. Another term also commonly used is *co-design* which differs from co-creation. Sanders & Stappers (ibid.) describe *co-design* in a broader sense referring to the creativity of designers and people not trained in design, working together in the development process. According to Jungk (cited in Cross, 1972, pp.192) both these terms are part of participatory design. Sanders (2008) believes that such interactions with consumers, users or potential users lies at the crux of user-centred design, which is traditionally similar to how design practitioners and researchers work. Brecht (1932) and Benjamin (1936) argued the existence of a socialist concept of *prosumers* that promotes a collective media production by all and for all, leaning towards mass collaboration.

Today, *prosumers* are seen as key drivers for social activism which has influenced public awareness on sustainable brands, influencing buying behaviour to a certain extent. Tapscott and Williams (2007) illustrated the emergence of *wikinomics* and its positive impact on profitability; a concept also based on mass collaboration. They highlighted seven *wikinomics* business models, namely, *peer-pioneers, ideagoras, prosumers, new Alexandrians, platforms for participation, global plant floor, wiki,* and *workplace*. Conclusions found that these allowed firms to tap into the external knowledge and resources, allowing collaboration with users. These models are applied by many organisations, including LEGO, who were able to turn hackers into loyal open access programmers (*prosumers*), IDEO who have used *ideagoras* in their recent social innovation projects and SAP who have applied the use of open access platforms and i-clouds as a method of participation.

Tseng & Piller (2003) and Prahalad & Venkatswamy (2004) have clearly advocated co-creation bringing businesses and their consumers together. Prahalad & Venkatswamy (ibid.) clearly highlight the benefit of consumer participation in creation of value when they state; "*The meaning of value and the process of value creation are rapidly shifting from a product- and firm-centric view to personalized consumer experiences. Informed, networked, empowered and active consumers are increasingly co-creating value with the firm*". The commonality between these terms however remains simple, the involvement of people as a vital tool in the design process. This involvement of people is believed to not only enhance the usability of the product being designed but also to create added value in the process of collaborative working. Consumers are seen to be a vital stakeholder in the process of design, which has resulted in a number of approaches and

methods being developed as a result of the recognition of the value that their involvement can bring.

When considering the production phase of the product lifecycle however, the engagement of people as stakeholders is rarely considered. Unlike the design phase there are no methods or tools which allow for collaborative working to create added value or a mutually beneficial outcome. Co-production or co-manufacture are not recognised as ways of working, indicating that at this stage of the process people are no longer valued stakeholders. This contrast of the involvement of people is to be explored in this paper, with both the design and the production phase being considered. Within this context, the value of people will also be explored. This contrast can be seen as a transference of power, where consumers are initially held in high regard as a valued contributor to the design process, in comparison to later in the lifecycle where they are rarely involved until the retail stage of purchasing behaviour.

When considering ethical values in the product lifecycle, it is the design phase where this initially has to be considered. The role of the designer is to reflect the values of both the brand and the target customer with regards to social and environmental responsibility. This has dramatically grown in the past decade with companies now seeing the benefit of these considerations across the lifecycle of the products they produce (Zadek and Chapman, 1998; Wales et. Al., 2010; Burchell, 2008). However, it is during the production phase where the majority of social and environmental non-compliances occur, with issues such as working conditions, carbon emissions and water pollution often being seen in the product supply chain. This has been heavily evidenced in the fashion market in recent years, with social disasters such as that seen with Rana Plaza in 2013, where 2,132 garment workers were killed in the collapse of a garment factory in Dhaka, Bangladesh. Named as the deadliest garment factory disaster in history (BBC, 2013), it was thought it would have an impact on fashion consumer's purchasing behaviour, where more responsible decisions were expected. This however was not the case, the leader in the fast fashion market Primark reported annual profits for November 2013 to a 44% increase to £514 billion, with a revenue increase to £4.3 billion equating to £11.7 million per trading day (Hawkes, 2013). This lack of consumer response is said to be due to a limiting knowledge of the supply chain and the production process which occurs prior to a product being available in-store. This lack of connectivity and empathy on behalf of the consumer can be identified across the consumer goods market. A study involving fashion consumers showed consumer awareness was a key prohibiting factor when it came to the consideration of ethics (James, 2015). This paper acknowledges this lack of consumer knowledge, connectivity and empathy to the product supply chain and aims to explore the potential engagement of people across the lifecycle of products.

The following hypothesis will be tested during the collection of primary data:

The engagement of people as consumers are needed across all stages of the product lifecycle in order for ethics to be considered

In addition to the testing of the above hypotheses, the paper also aims to explore the following key elements:

- To investigate the impact that the involvement of people can have in the consideration of ethics

- To explore the involvement of people in the design stages of the product lifecycle in comparison to that in the production phase
- To determined if there is a relationship between consumer empathy and the consideration of ethics

Through the utilisation of a qualitative methodology, this paper will explore two case-studies across the product lifecycle including the fashion and consumer goods market. The consideration of ethics will remain the focus during this investigation with the incorporation of people at all stages of the product lifecycle. The creation of empathy will also be a key focus with the relationship between empathy and responsible values also being explored. The paper aims to conclude with the rationale for the involvement of people at all stages of the design and production process in order to consider responsible values throughout the product lifecycle.

2. Literature Review

2.1 The Consideration of Ethics

Defining ethics as an understandable term has proven difficult for researchers and academics alike. There is currently no industry standard or working definition for the term and consequently is often a misunderstood and confused area. It has been said that the definition has become an issue with factors often being subjective or situational (Bray et al., 2010). The lack of precision in defining this area has resulted in an array of inter-related terminology being used (Szmigin et al., 2009). It has been utilised to cover a range of activities in industry including; material sourcing, worker rights, transport, chemical usage etc. However, this raises an argument that if a product complies with some ethical factors but not others, can the product be considered to be ethical or not? This argument could also be reflected in the brand of Fairtrade. This certification currently only refers to the raw material, in the case of the clothing industry, this can only be applied to cotton. It has therefore been suggested that due to the whole of the supply chain not being covered the application of a certification can be contradictory and misleading for the consumer (Fashioning an Ethical Industry, 2010).

To refer to the origins of the term ethical, it derives from the meaning *arising from the character,* the Greek *ethikos* or *ethike* and the Latin *moralis.* They also carry the connotation of arising from habit or custom (Baggini & Fosl, 2007). These definitions, however, rely on the subconscious of the individuals being aware of what may be wrong or right behaviour. This appears again to be a very hard area to define and could be described as far too subjective to be relied upon. Aristotle described human beings as rational animals, implying that humans begin to reason using techniques of logic, science and analysis (Baggini & Fosl, 2007). This assumption of humans being rational again is potentially flawed, as it relies on the specific individuals use of their rational sense when making decisions.

Taking quite a realistic viewpoint when discussing ethics, it has been suggested that the term ethical is far too broad in its definition, too loose in its operations and too moralistic in its stance (Devinney et al., 2010), leading to the conclusion that ethical consumption is, therefore a myth. This argument again raises the issue of ethical awareness levels amongst consumers. The individual's perception and understanding of the term could also

be an issue. It is acknowledged that consumers do not currently have enough information and understanding of the terminology to make a fully informed purchasing decision (Ritch & Schroder, 2009). Another practical line of reasoning would be the idea of a moral relativist, who believes that all people do not hold or obey by the same morals and ethics during their day-to-day lives (Baggini & Fosl, 2007).

This inconsistency in terms of the application of ethics across the supply chain can also be compared to that of the engagement of people in the product lifecycle; sporadic and unpredictable. The involvement of people throughout the product lifecycle can help incorporate ethics in a more holistic way, in preference to compliance being evident in only some areas of the design and make phases.

When considering ethics in the product lifecycle, there are many stages in which people can become engaged. However, when doing this, a large proportion of literature and academic debate is dedicated to people as consumers and how they purchase in relation to their ethical values. Although this area of engagement will be considered in this paper, it is a more holistic overview of the engagement of people in the product lifecycle that is to be taken. People will be considered at both the design and production phase of the product lifecycle in addition to people as consumers and how their ethical beliefs and values are reflected in their interaction with products during the use phase.

When considering people as consumers, it is to be acknowledged that every consumer is individual regardless of their background and interests, and therefore the key is to identify their specific needs (Barrie, 2009). However, consumer typologies have often been utilised as a tool to group sectors of people together as a reflection of their responsible values (Clouder & Harrison, 2005; Cowe & Williams, 2001; Szmigin et al., 2009; Carrigan & Attalla, 2001; Morgan & Birtwhistle, 2009; Mintel, 2007). These typologies aim to categorise consumers into generalised groups ranging from the non-ethical to the super-ethical. For example, Clouder and Harrison (2005) divide consumers into three key groups; distancing, integrated and rationalising. Realistically, however, there is often little consistency in demographics and consequential consumer behaviour (Devinney et al., 2010).

It is believed that the lack of connectivity and therefore compassion towards the social factors in the product lifecycle can often lead to non-ethical engagement. Carrigan and Attalla (2001) believe that the consumer importance of self-continues to emerge, where if unethical behaviour affected them personally, they may care more. This begins to form one of the key arguments for the rationale of this research, relating awareness of ethics to the development of empathy with the consumer. The growth of knowledge and awareness of ethics in the development of a product could aid in the creation of consumer empathy.

A lack of ethical engagement is said to often be due to low awareness levels and an overall lack of knowledge (Ellen, 1994). However, 52% of consumers in the UK admit to being ethically aware but are currently not actively purchasing ethically (Worcester and Dawkins, 2005). Ritch and Schroder (2009) believe that a fully informed consumer is unattainable, it is also thought that growing levels of ethical awareness is due to academic interest, increased media levels and a greater choice of ethical products (Newholm & Shaw, 2007). However, researchers believe that consumers think more ethically than they actually do. This is said to be due to weak research methods being used, leading to an

inflated measure of intentions (Carrington et al., 2010). Ellen (1994) reiterates this point, as consumers are not as knowledgeable as originally thought, and not aware enough to make an informed decision. This demonstrates that the absence of empathy leads to an inconsistency of ethical engagement as a reflection of a lack of knowledge and awareness. The further engagement of people and the development of empathy could aid in ethics to be considered across the product lifecycle, not just during the use phase of the process. The need for empathy to be considered early in the lifecycle process will be discussed later in the paper with a user-centred approach to product development utilised.

2.2 The Product Lifecycle: Design

Historically design has been at the centre of the product life cycle. It is design that provides the spark in form of a new idea, and then it also plays a vital role in bringing the idea to life, i.e. bringing a product to market (more commonly known as innovation). This unprecedented connection between innovation and design has recently caught the attention of manufacturing business which has led to a number of revelations regarding design.

First, design is *adaptive*, *resilient*, and *transformational* (Miemis, 2010); transforming business growth whilst carefully considering the implications of the new ideas on the society. Design is not just an event or a *eureka* moment, but a process, where design thinking plays a very important role (Brunner, Emery, and Hall, 2009). Design thinking on the other hand, is a human-centered innovation process that causes business strategy and innovation to be more human centric (Lockwood, 2010). Brown (2009, p.227) argued that "*design thinking can not only contribute to the success of companies but also promote the general welfare of humanity*", perhaps suggesting that design thinking could make corporates (that use it) think ethically. He explained that the power of design thinking is to discover new possibilities, generate new ideas, and get new solutions. Moreover, leading designers to make better societies, more profitable businesses, and more valuable living.

There is no simple way to describe what goes on in a design process; this poses a challenge to the claims that design is actually human-centred as well as business focused. Attempts to visualise such creative processes are limited due to the growing complexity of the activities associated with design, the fluid nature of the context within which design is applied, and also the rapidly changing environment of the organisations within such processes are applied. Sanders and Stapper's (2008) model for the design process, illustrates the complex and probably most realistic description of the journey that is taken by a designer (Figure 1). The suggest that a problem in form of a brief is explored in the fuzzy front end, following which design ideas are developed.

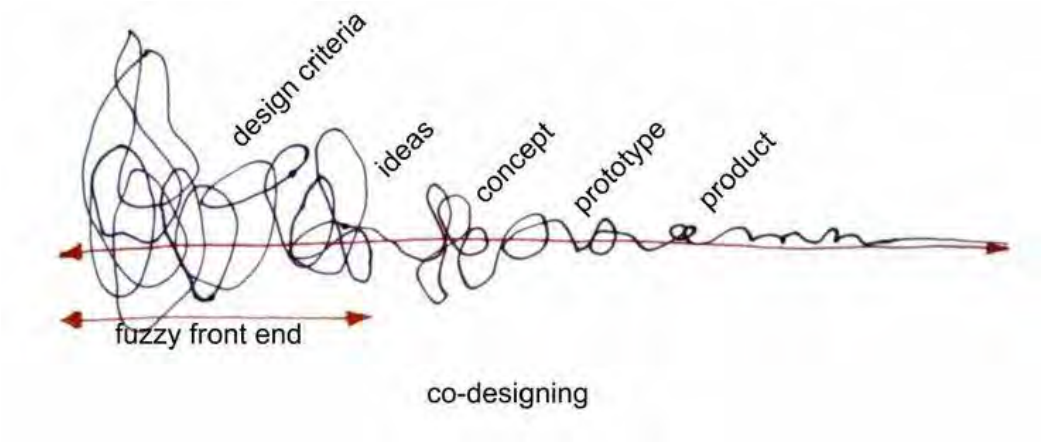

Figure 1 Model for design process. source: Sanders and Stappers (2008)

A more simple interpretation of the design process was provided by the Design Council (UK) (2007) famously named *the double diamond*. One of the strengths of this process description is the visualisation of both the divergent and convergent thinking, which helps explore and focus on the problems and solutions during the four distinct phases; *discover, define, develop* and *deliver* (Figure 2). This convergent and divergent thinking is seen to influence a designer's decision on who to involve within each stage and for what purpose. However, the double diamond simplifies the process ever so much that the scope of the human-centric aspect is lost completely.

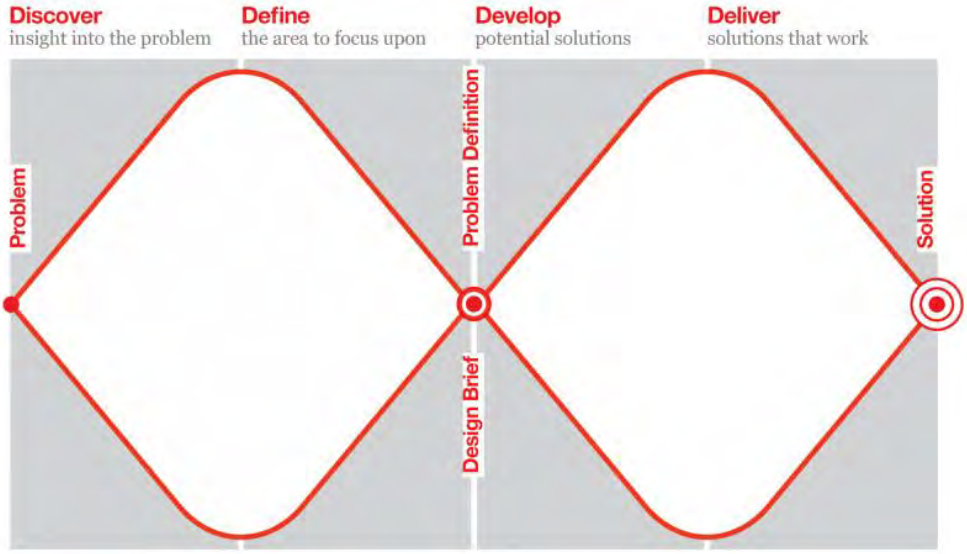

Figure 2 Double Diamond Design Process. source: Hunter (2015)

This poses a fundamental question for design, how do designers claim that they are making organisations human-centric and at the same time deliver business success?

This is answered partially in the third revelation on design, which is that design is participatory, and requires people in form of users, consumers and participants to add any value. The design process does not take place in isolation and requires constant interaction with members of the public. The user-centred prototype driven design process developed by the Hasso Plattner Institute of Design at Stanford (Dschool, 2009) follows a similar set of phases to the double diamond, but includes *empathise* as the first stage (Figure 3).

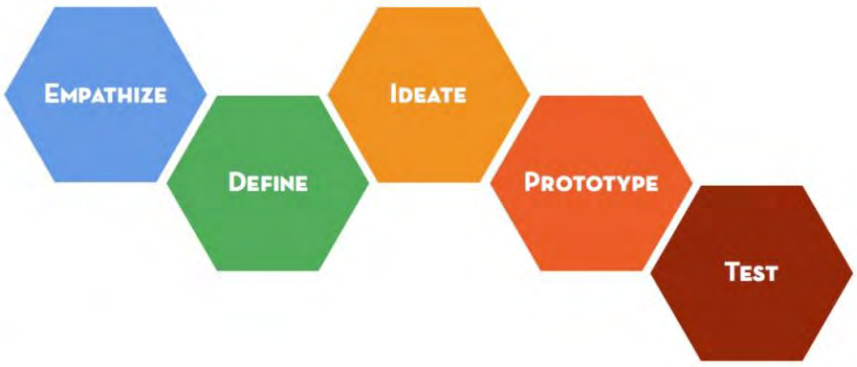

Figure 3 Five stages of a design process starting with empathy. source: Dschool (2009)

In this model, the human-centred approach means that the starting point is the one in which the designer responds to human needs ensuring that the outputs are both useful and meaningful to people. However, there is a need for a more outside-in approach towards participatory design for product development and the manufacturing process. This would allow people to be stakeholders and not mere users throughout the product development process, and also not just in the early stages.

2.3 The Product Lifecycle: Production

The lack of knowledge and awareness of ethics in the product lifecycle needs to be addressed through the further involvement of people at various stages. It can be seen that people are widely considered as vital tools during the design phase of the development process through the application of co-design or participatory design approach, for example. However, it is at this stage of the process is where the involvement of people can quickly diminish. When taking an overview of the product lifecycle, it can be seen that there is a prominent gap in the involvement of people between the end of the design process until the use phase, where people then become users and regain the power of influence once again. Despite this being the case across many market sectors, when considering ethics in the product lifecycle, the consistent involvement throughout is necessary.

In comparison to other production industries, the production of clothing carries a significant amount of social risk due to the complexities of supply chains and routes of manufacture (Burchell, 2008, p. 104). While in theory, retailers should hold control over their supply chains, it has been questioned if retailers alone have the power and skills in

order to develop and adapt the production of clothing to a more ethical business model. It has been suggested that partnerships with groups such as non-governmental organisations can drive forward change through collaboration, however conflicting literature also suggests that it is a strong direction from governments that is needed for rapid change in ethical development (Wales et al., 2010). There has been a lot of the previous exploration into a number of influence retailers have over the ethical engagement of their customers, however when considering what has been termed as the intention-behaviour gap (an identified disparity between individuals purchasing intentions translating into actual behaviour), it is thought that consumers are over stressing what they believe to be ethical behaviour, consequently having implications of the plausibility of this influence (Cowe & Williams, 2001).

The engagement of people within the manufacturing phase can be potentially problematic due to not only geographical location but also on the reliance on the retailer to share information regarding their supply chain. Transparency of supply chains has been discussed heavily in academic literature and remains a prominent area of research. For example, Mol (2015) describes transparency as the disclosure of information, with specific attention paid to ethics and sustainability. Whilst O'Rourke (2003) described it as a central factor on which to base the judgement of a company's supply chain. The most basic definitions begin with the amount of information a company is willing to disclose about their supply chain practices (Carter and Rogers, 2008), adopting a trace and trace approach to production (Doorey, 2011; Laudel, 2010). Transparency has also been related to many similar business ethics practices including legitimacy (Carter & Rogers, 2008; Kell, 2013) accountability (Dubbink, Graafland & Van Liedekerke, 2008) and trust (Augustine, 2012). The engagement of people in this phase of the product lifecycle relies on the disclosure of information through communication of business practices.

Increased transparency has also been described as a process, with the transference of power from the company to its external stakeholders also adding to the discourse (Martinez & Crowther, 2008). This again encourages not only further transparency but also the involvement of people during the production phase of the process. Whilst external individuals cannot be part of the production phase as they are during the design process through approaches such as co-design and user-centred design, the potential influence the engagement of people as consumers have on the manufacturing supply chain is to be recognised.

3. Methodology

With the growth of ethical research, academics have begun to question the methodological approach taken whilst undertaking such work. It has been suggested that studies have been utilising similar research methods and are therefore producing a series of comparable results. Auger and Devinney (2007) suggest that the use of similar survey instruments may overstate the importance of ethical issues as the participants have little to no incentive to answer truthfully. The methods used are accused of often restraining answers and of using simple rating scales, giving inaccurate and undetailed answers.

This research recognises the methodological issues that have been identified as common problems during research of this nature. With this in mind, a mixed methods approach has been utilised, trying to minimise issues that have been previously identified that could

potentially be questioned for their rigour at a later date. By challenging the academic norm of using an established methodology, a more selective approach has been taken in order to use the most appropriate methods to address the problem space. This mixed method or *bricolage* approach was utilised to not only overcome methodological issues identified in previous research but to also address the gaps in knowledge in a creative and innovative way (Yee & Bremner, 2011).

This investigation adopted a qualitative methodology, utilising a case study approach to investigate both the design and production phase of the product lifecycle. Both cases studies are comparable in the sense that they are both global brands that cater to consumer goods such as fashion, accessories, home appliances and/or electronics. Both cases studies have been detailed below:

- Case Study 1 is a global consumer goods organisation based in The Netherlands. For the current investigation, this case study provides the product development process for the design function within the organisation, demonstrating a heavy involvement of people in the early stages of idea generation. The evidence then illustrates the reduction in the level of participation by people in the later stages of the product development process.
- The case study applied an emerging methodology to explicitly define the organisation's value proposition and development process and build a consensus amongst the stakeholders on the process description (Aftab, M. & Young, R, 2016). For this purpose, the lead author was embedded as a participatory observer in the Research Development and Innovation (RD&I) team for the duration of 11 months. A methodology that combined the Delphi technique, one-on-one and workshops were used. Whilst Delphi technique was a well-established method for achieving consensus, it did not have the capacity to engage the innovation practitioners in any reflective exercise, nor it had the means to create a reasonable common language amongst the stakeholders. Therefore, this led to the inclusion of reflective interviews that enabled the innovation practitioners to apply reflection-in-action, and describe their practice in detail. Also, workshops were introduced as a platform to uphold transparency amongst all the stakeholders, and create a common understanding and description of the process.
- Case Study 2 is a prominent British high-street retailer, bringing multiple product types to the mass market, including fashion, accessories and homeware. The data collected demonstrated the need for the involvement of people in the latter stages of the product lifecycle, specifically in the manufacturing supply chain in order for ethics to be considered.
- With the researcher acting as the participatory observer, data collection methods included semi-structured, informal interviews with company representatives including The Head of Sustainable Business and The Ethical Trade Manager. In addition to the data collected utilising interview methods, observations were conducted through the attendance of meetings and engaging in projects for the company. Furthermore, the secondary analysis of company documents was also explored, including any information made public on their website and in-stores informing consumers about the ethical and sustainable practices of the company.

Analysis methods utilised were reflective of the methodological issues previously identified and aimed to overcome the conclusion of predictable outcomes. Qualitative methods such as coding and content analysis were utilised alongside an iterative interplay of data collection and analysis, which allowed for sampling on the basis of emerging concepts.

4. Findings

4.1 Case Study 1: The Design Phase

Case Study 1 highlights thirteen steps of the strategic level design innovation process, which deals with creating new product proposals for the future (Figure 4). This process is carried out predominantly by the design function with some involvement from marketing and business functions, and it evidences a very heavy involvement of people in its early stages. The design process does not partake in the production, marketing and use stages, as this is the domain of marketing and manufacturing processes in this case study.

This data was attained with the second author embedded within the design process team as a participatory observer. The thinkers and the practitioners within the process were involved in Delphi technique, workshops and interviews in order to arrive at a consensus on their innovation process. This entailed explicit definition of the process through the definition of its purpose, steps, methods, tools, stakeholders and outcomes.

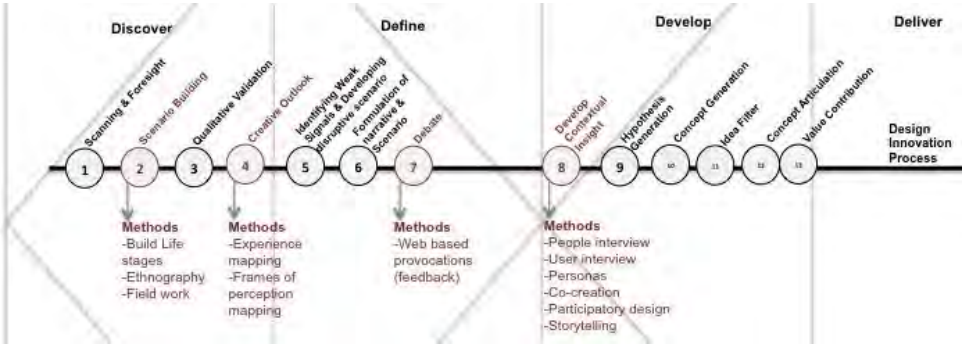

Figure 4 Methods of key external stakeholder engagement/empowerment in the design innovation process source: authors

4.1.1 Inclusion of People in the Product Development Process

The key steps within the design process that evidence higher level of inclusion of people through empathic engagement is scenario building (step 2), creative outlook (step 4), debate (step 7) and developing contextual insight (step 8). The purpose of step 2 is to engage potential users and identify people's real needs through extensive empathy-led socio-cultural investigations. Whilst this is a typical participatory design approach, the people involved in this step are a source of critical information that informs the later stages of the product design process and the development of value propositions. One example of these three methods has been evidenced in the 'Chulha' project (Philips, 2008).

People are seen playing a more important role in step 4, where they are able to persuade the design process team to consider 'people's' perspective. This step involves more focused discussions and debates on the value propositions identified in stage 2. In step 4 the design process team are the empathic listeners, whilst the participating 'people' play the role of advocates. This stage sees a significant refinement of the value propositions.

In step 7 people are merely providing feedback on future scenarios. Whilst his step allows the team to gain wider and more global feedback on highly provocative and futuristic design propositions, it does not give significant power to the people. However, evidence suggests that people's opinion in this stage does matter. The feedback received at this stage enables the design process team to choose propositions that could go into development and use, however many propositions that seem too outlandish are sent back to the previous stages to be re-configured and refined.

Finally, step 8 involves people in co-creation and co-design activities. This step enables people involved and the design process team to share equal say in decision making, and in the creation of functional and user-centred prototypes. This significant equalisation of people's rights and the rights of the design process team is a significant validation of author's argument in this paper. Specifically because, as soon as step 8 finishes, the involvement of people ends, and only returns when the design process re-starts for the new cycle of idea generation (in case study 1). However, case study 2 demonstrates that the involvement of people increases again during the production stage, discussed further in the next sections. The discussion around the involvement of design and people as potential users during marketing and production in case study 1 is outside the scope of this paper. Aftab et al. (2016) elaborate on the overall process further.

4.2 Case Study 2: The Production Phase

This stage of the process concentrated on the production stage which sees the product being manufactured prior to being brought to market. The focus looked specifically at the relationship between the retailer and the customer and how the power changes hands from the consumer to the retailer. During this stage of the purchasing scope, customers are susceptible to influential messages and information being provided both consciously and subliminally through advertising. The data was obtained through the engagement of a high-street company which brings fashion, accessories and homewares to the mass market. Several employees were interviewed alongside observations and secondary analysis of information obtained whilst the researcher was positioned at the company headquarters in London.

As previously mentioned when involving the consumer in the production phase of the product lifecycle, the physical engagement during manufacture is not possible. This engagement, however, happens with people as consumers, interacting with brands and their supply chains. This method of engagement can vary from company to company, but in this case involved the following tools:

- Communication of company ethical values to a public audience
- Engagement of the consumer through brand initiatives or campaigns
- The execution of projects which are driven by consumer-led innovation strategies
- The creation of brand trust through supply chain transparency

From the data collected, the findings can be summarised into key themes which address the initial hypotheses and aims proposed at the beginning of the paper.

4.2.1 The Power of the Retailer

When considering the production phase of product development, it was found that retailers are positioned in a powerful and influential role. Opposing the views of Wales et. Al., 2010, this paper believes that it is the retailers retain this ability to influence change due to their position, residing as a middle man between both the supplier of goods and the consumers that purchase these items in store or online. The relationship that retailers have with consumers is that not only of a provider of products but also a certain amount of control and influence over the purchasing process. With suppliers, their relationship is more customer based, where suppliers need to offer the right products at the right prices in order to maintain a business, working relationship. This again gives retailers a certain amount of power and control over the production supply chain.

Whilst in this powerful position, retailers are creating a barrier between consumers and suppliers, which is resulting in consumers often having little appreciation and the inability to relate to the social conditions in which products are often made. With relatively low knowledge and awareness, there remains a lack of connectivity between a consumer and workers employed in the production of goods. As highlighted by Ellen (1994), the consumer lack of knowledge leaves them unable to make informed decisions regarding their product purchases made. As a consequence of a low knowledge base, consumers have very little to no connectivity with the people who are involved in the production and as a result, no empathy with their social situation. This relates to the views of Carrigan and Attalla (2001) where it is believed that if people had a better connection to the supply chain they may care about social and environmental issues more. Figure 4 demonstrates the current relationship that suppliers, retailers and consumers have and demonstrates the barrier that is being put in place by retailers between suppliers and consumers. The further involvement of people across the product lifecycle could aid in not only the development of empathy through an increase in knowledge and awareness of ethics but also create a more consistent approach to the involvement of people.

Figure 5 Supply Chain Relationships. source: authors

4.2.2 Effective Communication Methods

A key finding across many of the interviews carried out was the need for effective communication methods in order to fully engage consumers in the company's supply chain. As identified in case study 2, it was highlighted that several methods were being implemented across the product ranges but the commonality between these was that preaching about ethics was not effective and could potentially have an adverse effect on the message being communicated. In preference to preaching, the brand opted for more engagement strategies such as campaigns and initiatives where participants could feel they were making a difference. Relating to the previous finding of the power residing with the retailer, further disclosure of information could see the transfernence of this power to the consumer thus giving them more responsibility and leverage to make a difference (Martinez and Crowther, 2008). The company studied initiated many schemes where the consumer could engage and be rewarded for their participation. Thank you, campaigns were also implemented, enabling the participant to see how their engagement has helped to make a difference. This relates to Maslow's Hierarchy of Needs where consumers are reaching the final stage of the pyramid *self-actualisation;* feeling the need to give something back to society through their behaviour.

Through internal consumer research, the company found that their customers had a desire for information regarding where and how their products had been produced, however they wanted this delivered in a series of simple messages related to responsible practices. This indicates not only a desire for information to be made available but also stresses the need for effective methods of communication to engage and inform the consumer. This desire for engagement also shows that transparent business practices are paramount in the provision of publicly available information regarding social and environmental responsibility.

4.2.3 Consumer Led Innovation

When considering behaviour in relation to ethics, a shift in thinking was identified by the company in terms of the relationship with their customers. Previously the company had taken the lead in striving for ethical practices in the product supply chain, however, consumers quickly took the lead in this. This was a change in what the company could do, to what they can facilitate their customers to do which again relates to power struggle identified previously by Martinez and Crowther (2008). Through levels of consumer engagement, the company were able to allow their customers to guide and the action taken to implement more ethical practices in the supply chain.

This transference of leadership was also an indication of brand trust, where consumers were recognising the brand as a company who took action on responsible business practices. When interviewing The Head of Sustainable Business he believed that consumers, if wanted, could leave their worries at the door and merely trust the company to make the correct decisions. The progress made with consumers, however, indicated that they wanted to engage and be involved in striving for the consideration of ethics in the product supply chain.

5. Discussion and Conclusions

Following the analysis of the data collected in case study 1 and 2, it can be summarised that three distinct contributions have been made:

1. There is an inconsistency of the involvement of people throughout the product lifecycle, indicating
    a. a very high level of importance given to people during the early stages of the design, and
    b. a very high level of engagement of people during the use phase, but
    c. a gap of involvement during the production phase.
2. There is a need for the involvement of people at all stages of the product lifecycle to create empathy and consequently ethical considerations.
3. This empathy could be instilled by involving design and its empathic approach (Dschool, 2009) throughout the product lifecycle and not merely during the early phases of the design process.

From the analysis of the product lifecycle through the utilisation of two case studies, it has been identified that the involvement of people as key stakeholders throughout the product lifecycle is necessary for the consistent consideration of ethics. It has been evidenced that the value of people has been recognised within the design phase of the product lifecycle, however, this level of engagement is inconsistent later in the process. There lies a prominent gap of the involvement of people between the end of the design process and the start of the use phase where people become engaged with the product again through purchasing and user behaviour. Despite the involvement of people in the production stage not always being possible, the power of people as consumers should influence this gap in the product lifecycle.

It has been evidenced that in order for consumer to be effective *prosumers* in the latter part of the product lifecycle a number of adaptations need to be made. These have

included the balance of power between the consumer and the retailer in the consideration of ethics. This can be further facilitated through greater transparency of the supply chains and effective communication methods. However the retailer, often acting as a middle-man needs to be trusting of the consumer in order for the transferenece of power to work.

A relationship between the creation of empathy and the consideration of ethics has been found, further emphasising the need for the involvement of people in order to create such values. This relates to the Dschool (2009) model of design, where the process begins with empathetic values in order for the process to be successful. This human connection between people as consumers and people as producers is vital to ensure ethics is a key decision-making factor in the manufacture of products in addition to that of design.

The value of engaging people in all aspects of the product lifecycle has been evidenced during the case study research. During the early stages of the cycle, people are seen to be adding value to the process through the use of a participatory design approach. During the production phase, consumer-led innovation has been evidenced where consumers and becoming *prosumers* and are beginning to take the lead in striving for more responsible considerations during the product lifecycle.

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